

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:

Y. AKIBA et al

Serial No.:

09/956,909

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For:

LOW-EMI ELECTRONIC APPARATUS, LOW-EMI CIRCOT

BOARD, AND METHOD OF MANUFACTURING THE LOW-

EMI CIRCUIT BOARD

Group:

2827

Examiner:

T. DINH

RESPONSE TO ELECTION REQUIREMENT

Assistant Commissioner for Patents Washington, D.C. 20231

Aug. 19, 2002

Sir:

In the matter of the above-identified application, the following responsive remarks to the outstanding Election Requirement, dated July 17, 2002, are respectfully submitted.

The requirement made by the Examiner, namely to elect a single-disclosed species from that listed on pages 2-3 of the standing Office Action, is noted.

Accordingly, applicants, through their undersigned representative, provisionally elect, with traverse, the species of Embodiment II (including Figs. 2 and 3 of the drawings) and request examination therefor of at least claims 1, 2 and 14, which are readable thereon. Incidentally, it is noted that claim 1 and dependent claim 2 thereof are also readable on the example embodiment shown in Fig. 7 of the drawings (corresponding to listed species of Embodiment IV). Also, a review of the remaining claims shows that independent claim 3 as well as dependent claims 4-5 and 15 thereof and the claim groups including that of claims 6-9 as well as that of

claims 12 and 13 are readable on Figs. 2-3 and 7 as genus (sub-genus) claims. Therefore, with respect to the present provisional election of Embodiment II, it is respectfully requested that claims 1, 2 and 14, which are specifically readable thereon, as well as claims 3-9, 12-13 and 15, which have genus application thereto, be examined therefor.

Regarding the embodiments in Figs. 2-3 and 7, it is noted that ground layer G1, ground layer G2 and power layer V relate to the first, second and third conductor layers of claims 1+; resistor material layers 6-1 and 6-2 in Fig. 2 and resistor layers 41-1 and 41-2 relate to the resistor layer according to claim 1; and 14 and 15 in Fig. 2 and 38 and 40 in Fig. 7 relate to the first and second dielectric material layers of claim 1. With regard to genus (sub-genus) application of the additional claims which also are encompassing of the example embodiment in Figs. 2 and 7 of the drawings, although not limited thereto, the first and second conductor layers as well as the resistor and the dielectric material layer according to claim 3, for example, can be said to read on the two ground layers G1 and G2 of Figs. 2 and 7, on the resistor material layers at the outer peripheries of Figs. 2 and 7 as well as on the dielectric material which is disposed between the two ground layers G1 and G2, respectively. With regard to claims 6+ and 12+, for example, which call for the first and second resistors and for the dielectric material to be disposed between the first and second conductor layers, this can be said to read on the dielectric material as well as the two peripherally disposed resistor material layers between the pair of ground layers G1 and G2 with regard to Figs. 2 and 7, although not limited thereto.

It is noted that the subject matter called for according to claims 3-13 and 15 specifically reads on the disclosure associated with listed species of Embodiment VIII (including Figs. 12(a)-(c)), although not limited thereto. With regard to claims

3+, 6+, 10+ and 12+, power layer V and ground layer G of Fig. 12(a)-(d) relate to the first and second conductor layers thereof; resistor layer 70 of Fig. 12(a) (see also Figs. 12(c) and 12(d) related thereto) along with an additional resistor layer contacting the ground layer 72, for example, relate to the first and second resistors (of claims 6+, 10+ and 12+) and the dielectric material 69, for example, relates to the dielectric material layer called for by the claims. That is, claims 3+, 6+, 10+ and 12+, which read on the species according to Embodiment VIII (including Fig. 12) are also readable (except for claims 10+), although generically, at least on the provisionally elected species of Embodiment II (including Figs. 2 and 3) as well as that of Embodiment IV (Fig. 7).

It is also observed that a structure such as a circuit board relating to the example embodiments of Figs. 2-3, 7 and 12 are illustrative of example structures, according to the present invention, of circuit boards which realize low-EMI. Considering, therefore, that Figs. 2, 7 and 12 are example representations of structures of circuit boards for realizing low-EMI, the Examiner is urged, nonetheless, to examine not only claims 1-2 and 14 as well as claims 3-9, 12-13 and 15, but, moreover, also claims 10-11. In fact, it is noted that listed species corresponding to Embodiments I, II and VIII together include example embodiments covered by Figs. 1-5, 12 and 15-34, covering all of the presently pending claims. That is, the Examiner is urged to examine not only the claims specifically related to the species covered by Figs. 2-3 (Embodiment II) as well as the genus (sub-genus) claims pertaining thereto, but, also, all of the remaining claims, noting that a substantial amount of subject matter overlapping exists between them.

According to U.S. practice and as set forth in MPEP §803:

"If the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to distinct or independent inventions."

Noting that all of the claims detail a structure including conductor layers, dielectric material layers and resistor layers, it is expected that a substantial amount of overlapping in a state-of-the-art searching would result between that of the claims directed to different ones of the named species (embodiments), as presently grouped by the Examiner. It is submitted, therefore, no serious burden would be placed on the Examiner in maintaining all of the claims as a single grouping for purposes of examination.

Therefore, in view of the above responsive remarks, reconsideration and withdrawal of the standing election requirement and examination therefor of not only claims 1-9 and 12-15 but, also, of claims 10 and 11 is respectfully requested.

To the extent necessary, applicants petition for an extension of time under 37 CFR §1.136. Please charge any shortage in the fees due in connection with the filing of this paper, to the Deposit Account of Antonelli, Terry, Stout & Kraus, LLP, Dep. Acct. No. 01-2135 (500.35516VX1), and please credit any excess fees to such deposit account.

Respectfully submitted, ANTONELLI, TERRY, STOUT & KRAUS, LLP

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